

REMARKS

Claims 1-6, 8-13, 15-21, and 23 are pending in the application.

Claims 12, 13, 15-17, 21 and 23 are allowed. Claims 5 and 8 (dependent upon claim 1) are objected to as being based on a rejected base claim, but are otherwise allowable.

Claims 1-4, 6, 9-11 and 18-20 have been rejected under 35 USC §103(a) in view of various combinations of teachings found in Shin (#6,601,313), Cho (#6,168,427), Perlov (#6,393,337), Horr (#RE30,610), and the newly cited Morgan (#6,202,528) prior art. Although not cited in the previous Office Action, the Examiner has now cited the Horr reference as teaching collective and radial movement of the guiding blocks on the susceptor. Applicants traverse on the ground that Horr does not include guiding blocks that move in a radial direction. As no other reference teaches such an element, rejection under §103(a) would fail as a matter of law.

Applicant respectfully requests reconsideration and allowance of the claims remaining in the case for consideration (claims 1-6, 8-13, 15-21 and 23) in light of the above amendments and following remarks.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin in view of Horr and further in view of Morgan.

Claims 2, 3, 6, 9, 10, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin in view of Horr in view of Morgan as applied to claims 1 and 18 above, and further in view of Cho.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shin in view of Horr in view of Morgan in view of Cho as applied to claim 3 above, and further in view of Perlov.

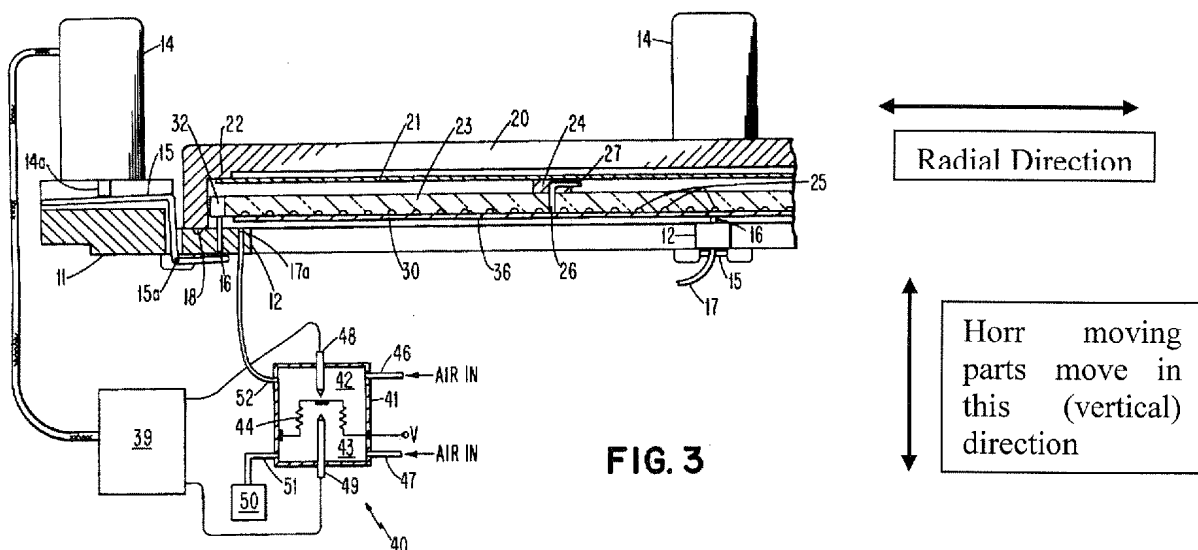
Independent claims 1 and 18 were amended in the previous response to cite that the guiding block transfer unit is adapted to *collectively* move the guiding blocks *radially* on the susceptor on which the substrate is positioned. No prior art of record teaches this feature:

- The ***Shin*** guide blocks are only vertically (not radially) moveable and only individually (not collectively) adjustable.

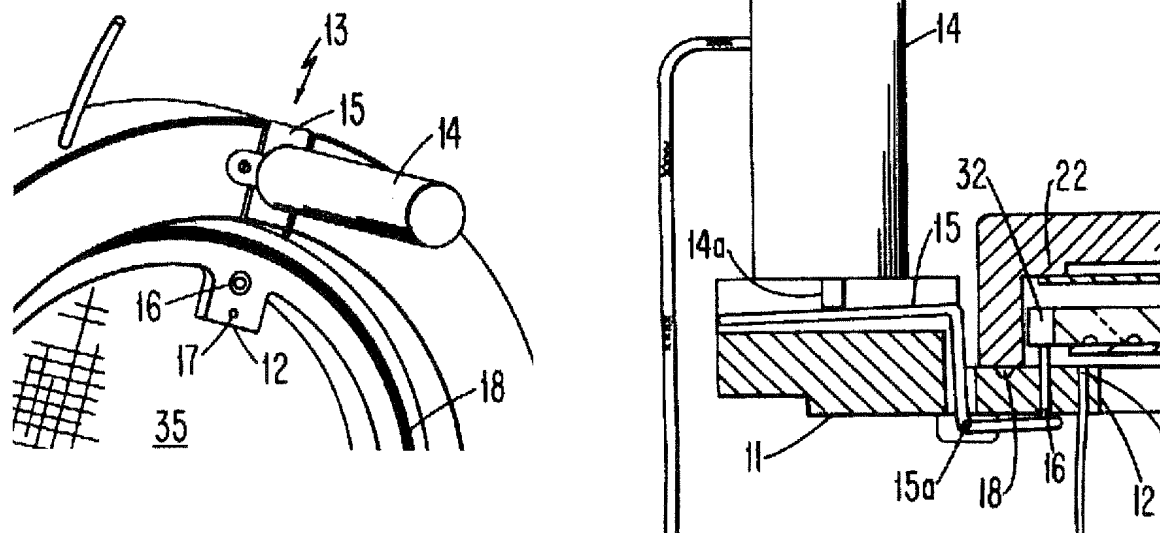
- The **Morgan** saw blade guide blocks move in a linear and parallel fashion, not “radially” or “collectively” as noted in claims 1 and 18.
- **Cho** does not move the bracket and wing nut structures collectively to adjust rollers 42. There is no suggestion of structure that would allow such brackets and wing nut structures to be adjusted collectively as such nuts, one tightened down, are not prone to move.
- **Perlov** does not contain guide blocks that move “radially.” In fact, the articulated arm of Perlov only acts to move the contact points in a parallel, linear manner against multiple wafers (see, e.g., structure of Perlov FIG. 1A).
- **Horr** does not include any component that moves “radially” but rather vertically. As the Examiner has specifically cited Horr as teaching such radial and collective movement, a further discussion is included below.

A. The Only Moving Parts Of Horr Move Vertically, And Not Radially Or Collectively

Horr FIG. 3 is shown below. The wafer 30 is shown attached to an underside of a wafer holder 23 via a vacuum pressure applied through channels 25 defined on the bottom of holder 23. Driver translators 14 and lift pins 16 surround the wafer holding assembly at 120° intervals. Detectors 40 associated with each pin 16 detect the relative attitude of the holder lugs 32 (and thus the attached wafer 30). If the lug 32 is too low, then the detector triggers actuation of the associated translator 14 to push down (e.g. vertically) on a horizontal driver arm 15 which in turn moves the attached pin upward via pivot point 15a to thereby level that side of the holder/wafer.



Close-ups of the Horr features are shown below. The figure on the left below shows a portion of FIG. 1—a perspective view of the adaptor ring 11 that holds the wafer and chuck assembly. The adaptor ring 11 includes three spaced ears 12 that extend radially into the interior of the ring 11. However, these ears do not move (although a pin 16 extends vertically through the ear as described below). The figure on the right below shows a portion of FIG. 3—a sectional view side elevation view of the assembled wafer holder.



It is important to note that “radial” movement relative to the block assembly or wafer holder would necessarily be in the left/right direction relative to the figure above/right. The only moving parts in the Horr assemblies shown above, however, move up/down as follows:

- Downward movement of the central shaft 14a of the driver translator 14.
- Downward movement of driver arm 15.
- Rotational movement about pivot 15a.
- Upward movement of the driver pin 16.

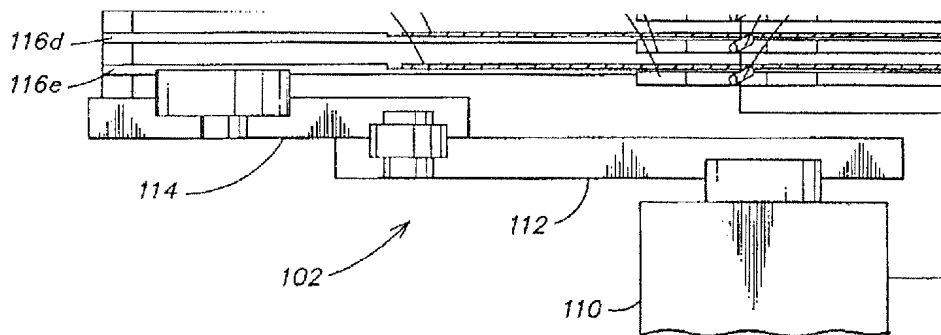
Note that it would be impossible for driver pin to move in a left/right (e.g. radial) direction because it is slidably received within a vertical channel. Accordingly, Horr does not exhibit radial movement of the guiding block transfer unit and would therefore not teach that aspect of the presently claimed invention. Furthermore, adjustment of movement of each driver pin 16 occurs independently as each driver is attached to an associated sensor. There is no evidence that cross-talk occurs between the sensors. Accordingly, Horr does not exhibit collective

movement of the guiding block transfer unit and would therefore not teach that aspect of the presently claimed invention.

B. Perlov Only Shows At Most A Single Horizontally-Extending Supporting Rod Attached To A Rotating Shaft, Not A Plurality Of Such Rods As Per Claim 4

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shin in view of Morgan in view of Cho as applied to claims 1-3 above, and further in view of Perlov. The claims require a “plurality” of horizontally-extending supporting rods attached to the shaft and a “plurality” of transfer rods connected between the supporting rods and the guiding blocks. Perlov only teaches the use of a single horizontally extending support rod 112 and that this single rod is coupled to multiple guiding blocks 116a-116e.

A portion of Perlov FIG. 1B is shown below.



The Perlov device only includes at most a single horizontally-extending arm 112 attached to the shaft 110. Arm 114 is not attached to the shaft 110, instead it is attached to arm 112. Accordingly, Perlov would not teach the claim 4 element of “a *plurality* of horizontally-extending supporting rods attached *to the shaft*.” Furthermore, there is no feature within Perlov teaching a plurality of “transfer rods” connected between the supporting rods and guiding blocks as set forth in claim 4. The Examiner has cited to col. 3, lines 25-28 of the Perlov disclosure, however this text does not describe such features. The Examiner is requested to specifically point out these elements within Perlov, or alternately drop this rejection to the claims and pass the claims to allowance.

Allowable Subject Matter

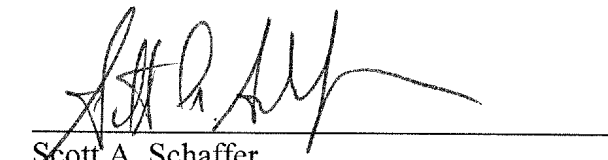
Claims 12, 13, 15-17, 21 and 23 are allowed.

Claims 5 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As the prior art fails to teach certain elements contained in the base claim, the base claims are considered patentable over the prior art no amendments are thus considered necessary (and none made) to claims 5 and 8.

For the foregoing reasons, reconsideration and allowance of claims 1-6, 8-13, 15-21 and 23 of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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